### **TS-LLD**

## **Electronic Line Leak Detection System**

#### **INCON**

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**Evaluator:** KWA - 07/06/95



System Description: The INCON TS-LLD line leak detector has two major "system" components. The Leak Sensing Unit or **LSU** is installed into the line leak detector port at the submersible pump housing. The Control Unit or CU is installed above or to the side of the submersible pump relay box or motor starter enclosure. The TS-LLD system will automatically turn on the submersible pump during quiet periods to run pressurized line leak tests. A quiet period is required to complete all line leak tests. A 3.0 gph test will automatically run after every product dispense and takes 3 minutes to complete. The 0.2 gph test also runs automatically after product dispense and takes a minimum of 55 minutes to complete. The 0.1 gph test must be started manually. To conduct a 3.0 gph test, press the control unit reset/test button momentarily. The display should indicate an 88 while the button is held down. Do not hold the button for longer than four seconds or a 0.1 gph test will be started. Turn the dispenser lever on and then off to start 3 gph test. At the control unit, the Line Leak Test indicator will light. The attached page describes alarm and error codes.

**Test Period:** 3.0 gph - 3 minutes

0.2 gph - min. 55 minutes to max. 8 hrs 0.1 gph - 8 hrs quite time; 40 minute test

Max. Pipeline Cap: Rigid - 163 gal

**Flex** - 49.6 gal

# ALARM & ERROR CODES TS-LLD

Display Code	Description
00 to 28	<b>Not Flashing (No Alarm or Error)</b> this is a <b>normal display</b> of the number of days since the last monthly line leak test passed.
88	<b>Not Flashing (System OK)</b> the control unit electronics and display is working correctly.

#### **Flashing Display - Alarm and Error Codes**

8 1	
1	Failed Annual (0.1) GPH line leak test
2	Failed Monthly (0.2) GPH line leak test
3	Failed Hourly (3.0) GPH line leak test
29 - 32	<b>Alarm - Over 28 days since the last Monthly line leak test passed.</b> The number that is flashing is the number of days since the last monthly line leak test passed.
80	Annual leak test aborted.
81	Leak Sensing Unit is out of operating range.
82	Leak test aborted thermal instability
83	Leak Sensing Unit is not communicating.
84	Pressurized line is out of compliance.
85	Leak Sensing Unit requires cleaning.